

# SUMMARY PROPOSAL BUDGET YEAR 1

| ORGANIZATION<br><b>Wesleyan University</b>  |        |      |      | FOR NSF USE ONLY                |                              |                             |                                     |
|---|--------|------|------|---------------------------------|------------------------------|-----------------------------|-------------------------------------|
|   |        |      |      | PROPOSAL NO.                    | DURATION (months)            |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |        |      |      | AWARD NO.                       | Proposed                     | Granted                     |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |        |      |      | NSF Funded Person-mos.          |                              | Funds Requested By proposer | Funds granted by NSF (if different) |
|   | CAL    | ACAD | SUMR |                                 |                              |                             |                                     |
| 1. <b>James B Lipton - PI</b>   | 0.00   | 0.00 | 2.00 | \$ 14,000                       |                              |                             |                                     |
| 2. <b>Daniel J Dougherty - co-PI</b>  | 0.00   | 0.00 | 2.00 | 16,038                          |                              |                             |                                     |
| 3.  |        |      |      |                                 |                              |                             |                                     |
| 4.  |        |      |      |                                 |                              |                             |                                     |
| 5.  |        |      |      |                                 |                              |                             |                                     |
| 6. ( 0 ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  | 0.00   | 0.00 | 0.00 | 0                               |                              |                             |                                     |
| 7. ( 2 ) TOTAL SENIOR PERSONNEL (1 - 6)   | 0.00   | 0.00 | 4.00 | 30,038                          |                              |                             |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |        |      |      |                                 |                              |                             |                                     |
| 1. ( 0 ) POST DOCTORAL ASSOCIATES   | 0.00   | 0.00 | 0.00 | 0                               |                              |                             |                                     |
| 2. ( 0 ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)   | 0.00   | 0.00 | 0.00 | 0                               |                              |                             |                                     |
| 3. ( 0 ) GRADUATE STUDENTS  |        |      |      | 0                               |                              |                             |                                     |
| 4. ( 0 ) UNDERGRADUATE STUDENTS   |        |      |      | 0                               |                              |                             |                                     |
| 5. ( 0 ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)   |        |      |      | 0                               |                              |                             |                                     |
| 6. ( 0 ) OTHER  |        |      |      | 0                               |                              |                             |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |        |      |      | 30,038                          |                              |                             |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |        |      |      | 2,313                           |                              |                             |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |        |      |      | 32,351                          |                              |                             |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)   |        |      |      |                                 |                              |                             |                                     |
| <b>2 workstations</b>   |        |      |      | \$ 8,500                        |                              |                             |                                     |
| TOTAL EQUIPMENT   |        |      |      | 8,500                           |                              |                             |                                     |
| E. TRAVEL   |        |      |      |                                 |                              |                             |                                     |
| 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |        |      |      | 2,000                           |                              |                             |                                     |
| 2. FOREIGN  |        |      |      | 4,500                           |                              |                             |                                     |
| F. PARTICIPANT SUPPORT COSTS  |        |      |      |                                 |                              |                             |                                     |
| 1. STIPENDS \$  | 0      |      |      |                                 |                              |                             |                                     |
| 2. TRAVEL   | 10,000 |      |      |                                 |                              |                             |                                     |
| 3. SUBSISTENCE  | 0      |      |      |                                 |                              |                             |                                     |
| 4. OTHER  | 0      |      |      |                                 |                              |                             |                                     |
| ( 11 ) TOTAL PARTICIPANT COSTS  |        |      |      | 10,000                          |                              |                             |                                     |
| G. OTHER DIRECT COSTS   |        |      |      |                                 |                              |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |        |      |      | 1,274                           |                              |                             |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |        |      |      | 0                               |                              |                             |                                     |
| 3. CONSULTANT SERVICES  |        |      |      | 0                               |                              |                             |                                     |
| 4. COMPUTER SERVICES  |        |      |      | 0                               |                              |                             |                                     |
| 5. SUBAWARDS  |        |      |      | 392,032                         |                              |                             |                                     |
| 6. OTHER  |        |      |      | 0                               |                              |                             |                                     |
| TOTAL OTHER DIRECT COSTS  |        |      |      | 393,306                         |                              |                             |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |        |      |      | 450,657                         |                              |                             |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)  |        |      |      |                                 |                              |                             |                                     |
| <b>Salary (Rate: 78.00, Base: 30038)</b>  |        |      |      |                                 |                              |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |        |      |      | 23,429                          |                              |                             |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |        |      |      | 474,086                         |                              |                             |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |        |      |      | 0                               |                              |                             |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |        |      |      | \$ 474,086                      | \$                           |                             |                                     |
| M. COST SHARING PROPOSED LEVEL \$   |        |      |      | 0                               | AGREED LEVEL IF DIFFERENT \$ |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |        |      | DATE | FOR NSF USE ONLY                |                              |                             |                                     |
| <b>James B Lipton</b>   |        |      |      | INDIRECT COST RATE VERIFICATION |                              |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |        |      | DATE | Date Checked                    | Date Of Rate Sheet           | Initials - ORG              |                                     |

## SUMMARY PROPOSAL BUDGET COMMENTS - Year 1

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**\*\* E- Travel**

**Attend principal Logic Programming and Rewriting Conferences  
(ILPS,ALP,PLILP,RTA)**

**and meet with other collaborators.**

**(see Budget Justification pages)**

# SUMMARY PROPOSAL BUDGET YEAR 2

| ORGANIZATION<br><b>Wesleyan University</b>  |  |  |      | FOR NSF USE ONLY                |                    |                |                             |                                     |
|---|--|--|------|---------------------------------|--------------------|----------------|-----------------------------|-------------------------------------|
|   |  |  |      | PROPOSAL NO.                    | DURATION (months)  |                |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |  |  |      | AWARD NO.                       | Proposed           | Granted        |                             |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |  |  |      | NSF Funded Person-mos.          |                    |                | Funds Requested By proposer | Funds granted by NSF (if different) |
|   |  |  |      | CAL                             | ACAD               | SUMR           |                             |                                     |
| 1. <b>James B Lipton - PI</b>   |  |  |      | 0.00                            | 0.00               | 2.00           | \$ 14,560                   | \$                                  |
| 2. <b>Daniel J Dougherty - noco-PIne</b>  |  |  |      | 0.00                            | 0.00               | 2.00           | 16,519                      |                                     |
| 3.  |  |  |      |                                 |                    |                |                             |                                     |
| 4.  |  |  |      |                                 |                    |                |                             |                                     |
| 5.  |  |  |      |                                 |                    |                |                             |                                     |
| 6. ( 0 ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  |  |  |      | 0.00                            | 0.00               | 0.00           | 0                           |                                     |
| 7. ( 2 ) TOTAL SENIOR PERSONNEL (1 - 6)   |  |  |      | 0.00                            | 0.00               | 4.00           | 31,079                      |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |  |  |      |                                 |                    |                |                             |                                     |
| 1. ( 1 ) POST DOCTORAL ASSOCIATES   |  |  |      | 0.00                            | 9.00               | 0.00           | 40,000                      |                                     |
| 2. ( 0 ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)   |  |  |      | 0.00                            | 0.00               | 0.00           | 0                           |                                     |
| 3. ( 0 ) GRADUATE STUDENTS  |  |  |      |                                 |                    |                | 0                           |                                     |
| 4. ( 0 ) UNDERGRADUATE STUDENTS   |  |  |      |                                 |                    |                | 0                           |                                     |
| 5. ( 0 ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)   |  |  |      |                                 |                    |                | 0                           |                                     |
| 6. ( 0 ) OTHER  |  |  |      |                                 |                    |                | 0                           |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |  |  |      |                                 |                    |                | 71,079                      |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |  |  |      |                                 |                    |                | 8,393                       |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |  |  |      |                                 |                    |                | 79,472                      |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)   |  |  |      |                                 |                    |                |                             |                                     |
| <b>Workstation + peripherals</b>  |  |  |      | \$                              | 4,500              |                |                             |                                     |
| TOTAL EQUIPMENT   |  |  |      |                                 |                    |                | 4,500                       |                                     |
| E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |  |  |      |                                 |                    |                | 2,000                       |                                     |
| 2. FOREIGN  |  |  |      |                                 |                    |                | 4,500                       |                                     |
| F. PARTICIPANT SUPPORT COSTS  |  |  |      |                                 |                    |                |                             |                                     |
| 1. STIPENDS \$ _____  |  |  |      | 0                               |                    |                |                             |                                     |
| 2. TRAVEL _____   |  |  |      | 10,000                          |                    |                |                             |                                     |
| 3. SUBSISTENCE _____  |  |  |      | 0                               |                    |                |                             |                                     |
| 4. OTHER _____  |  |  |      | 0                               |                    |                |                             |                                     |
| ( 11 ) TOTAL PARTICIPANT COSTS  |  |  |      |                                 |                    |                | 10,000                      |                                     |
| G. OTHER DIRECT COSTS   |  |  |      |                                 |                    |                |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |  |  |      |                                 |                    |                | 1,295                       |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |  |  |      |                                 |                    |                | 0                           |                                     |
| 3. CONSULTANT SERVICES  |  |  |      |                                 |                    |                | 0                           |                                     |
| 4. COMPUTER SERVICES  |  |  |      |                                 |                    |                | 0                           |                                     |
| 5. SUBAWARDS  |  |  |      |                                 |                    |                | 397,307                     |                                     |
| 6. OTHER  |  |  |      |                                 |                    |                | 0                           |                                     |
| TOTAL OTHER DIRECT COSTS  |  |  |      |                                 |                    |                | 398,602                     |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |  |  |      |                                 |                    |                | 499,074                     |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)  |  |  |      |                                 |                    |                |                             |                                     |
| <b>% of MTDC (Rate: 78.00, Base: 71079)</b>   |  |  |      |                                 |                    |                |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |  |  |      |                                 |                    |                | 55,441                      |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |  |  |      |                                 |                    |                | 554,515                     |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |  |  |      |                                 |                    |                | 0                           |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |  |  |      |                                 |                    |                | \$ 554,515                  | \$                                  |
| M. COST SHARING PROPOSED LEVEL \$ <b>0</b>  |  |  |      | AGREED LEVEL IF DIFFERENT \$    |                    |                |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |  |  | DATE | FOR NSF USE ONLY                |                    |                |                             |                                     |
| <b>James B Lipton</b>   |  |  |      | INDIRECT COST RATE VERIFICATION |                    |                |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |  |  | DATE | Date Checked                    | Date Of Rate Sheet | Initials - ORG |                             |                                     |

## SUMMARY PROPOSAL BUDGET COMMENTS - Year 2

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**\*\* C- Fringe Benefits**

**SUMR PI and co-PI benefits at 7.7%**

**ACAD Postdoc Benefits at 15%**

**\*\* E- Travel**

**Attend principal Logic Programming, Software and  
Rewriting**

**Conferences (ILPS,ALP,PLILP,RTA,TAPSOFT), meet with  
other collaborators.**

# SUMMARY PROPOSAL BUDGET YEAR 3

| ORGANIZATION<br><b>Wesleyan University</b>  |      |      |       | FOR NSF USE ONLY                |                    |                             |                                     |
|---|------|------|-------|---------------------------------|--------------------|-----------------------------|-------------------------------------|
|   |      |      |       | PROPOSAL NO.                    | DURATION (months)  |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |      |      |       | AWARD NO.                       | Proposed           | Granted                     |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |      |      |       | NSF Funded Person-mos.          |                    | Funds Requested By proposer | Funds granted by NSF (if different) |
|   | CAL  | ACAD | SUMR  |                                 |                    |                             |                                     |
| 1. <b>James B Lipton - PI</b>   | 0.00 | 0.00 | 2.00  | \$ 15,142                       |                    |                             |                                     |
| 2. <b>Daniel J Dougherty - co-PI</b>  | 0.00 | 0.00 | 2.00  | 17,014                          |                    |                             |                                     |
| 3.  |      |      |       |                                 |                    |                             |                                     |
| 4.  |      |      |       |                                 |                    |                             |                                     |
| 5.  |      |      |       |                                 |                    |                             |                                     |
| 6. ( 0 ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 7. ( 2 ) TOTAL SENIOR PERSONNEL (1 - 6)   | 0.00 | 0.00 | 4.00  | 32,156                          |                    |                             |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |      |      |       |                                 |                    |                             |                                     |
| 1. ( 0 ) POST DOCTORAL ASSOCIATES   | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 2. ( 0 ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)   | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 3. ( 0 ) GRADUATE STUDENTS  |      |      |       | 0                               |                    |                             |                                     |
| 4. ( 0 ) UNDERGRADUATE STUDENTS   |      |      |       | 0                               |                    |                             |                                     |
| 5. ( 0 ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)   |      |      |       | 0                               |                    |                             |                                     |
| 6. ( 0 ) OTHER  |      |      |       | 0                               |                    |                             |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |      |      |       | 32,156                          |                    |                             |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |      |      |       | 2,476                           |                    |                             |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |      |      |       | 34,632                          |                    |                             |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)   |      |      |       |                                 |                    |                             |                                     |
| <b>Hardware upgrades</b>  |      |      |       | \$ 4,500                        |                    |                             |                                     |
| TOTAL EQUIPMENT   |      |      |       | 4,500                           |                    |                             |                                     |
| E. TRAVEL   |      |      |       |                                 |                    |                             |                                     |
| 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |      |      |       | 2,000                           |                    |                             |                                     |
| 2. FOREIGN  |      |      |       | 4,500                           |                    |                             |                                     |
| F. PARTICIPANT SUPPORT COSTS  |      |      |       |                                 |                    |                             |                                     |
| 1. STIPENDS \$ _____  |      |      | 0     |                                 |                    |                             |                                     |
| 2. TRAVEL _____   |      |      | 9,768 |                                 |                    |                             |                                     |
| 3. SUBSISTENCE _____  |      |      | 0     |                                 |                    |                             |                                     |
| 4. OTHER _____  |      |      | 0     |                                 |                    |                             |                                     |
| ( 11 ) TOTAL PARTICIPANT COSTS  |      |      |       | 9,768                           |                    |                             |                                     |
| G. OTHER DIRECT COSTS   |      |      |       |                                 |                    |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |      |      |       | 1,245                           |                    |                             |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |      |      |       | 0                               |                    |                             |                                     |
| 3. CONSULTANT SERVICES  |      |      |       | 0                               |                    |                             |                                     |
| 4. COMPUTER SERVICES  |      |      |       | 0                               |                    |                             |                                     |
| 5. SUBAWARDS  |      |      |       | 401,178                         |                    |                             |                                     |
| 6. OTHER  |      |      |       | 0                               |                    |                             |                                     |
| TOTAL OTHER DIRECT COSTS  |      |      |       | 402,423                         |                    |                             |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |      |      |       | 457,823                         |                    |                             |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)  |      |      |       |                                 |                    |                             |                                     |
| <b>% of MTDC (Rate: 78.00, Base: 32156)</b>   |      |      |       |                                 |                    |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |      |      |       | 25,081                          |                    |                             |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |      |      |       | 482,904                         |                    |                             |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |      |      |       | 0                               |                    |                             |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |      |      |       | \$ 482,904                      |                    |                             |                                     |
| M. COST SHARING PROPOSED LEVEL \$ <b>0</b>  |      |      |       | AGREED LEVEL IF DIFFERENT \$    |                    |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |      |      | DATE  | FOR NSF USE ONLY                |                    |                             |                                     |
| <b>James B Lipton</b>   |      |      |       | INDIRECT COST RATE VERIFICATION |                    |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |      |      | DATE  | Date Checked                    | Date Of Rate Sheet | Initials - ORG              |                                     |

## SUMMARY PROPOSAL BUDGET COMMENTS - Year 3

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**\*\* E- Travel**

**Attend principal Logic Programming, Software and  
Rewriting**

**Conferences (ILPS,ALP,PLILP,RTA,TAPSOFT), meet with  
other collaborators.**

# SUMMARY PROPOSAL BUDGET YEAR 4

| ORGANIZATION<br><b>Wesleyan University</b>  |      |      |      | FOR NSF USE ONLY                |                    |                             |                                     |
|---|------|------|------|---------------------------------|--------------------|-----------------------------|-------------------------------------|
|   |      |      |      | PROPOSAL NO.                    | DURATION (months)  |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |      |      |      | AWARD NO.                       | Proposed           | Granted                     |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |      |      |      | NSF Funded Person-mos.          |                    | Funds Requested By proposer | Funds granted by NSF (if different) |
|   | CAL  | ACAD | SUMR |                                 |                    |                             |                                     |
| 1. <b>James B Lipton - PI</b>   | 0.00 | 0.00 | 2.00 | \$ 16,311                       |                    |                             |                                     |
| 2. <b>Daniel J Dougherty - co-PI</b>  | 0.00 | 0.00 | 2.00 | 17,525                          |                    |                             |                                     |
| 3.  |      |      |      |                                 |                    |                             |                                     |
| 4.  |      |      |      |                                 |                    |                             |                                     |
| 5.  |      |      |      |                                 |                    |                             |                                     |
| 6. ( 0 ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  | 0.00 | 0.00 | 0.00 | 0                               |                    |                             |                                     |
| 7. ( 2 ) TOTAL SENIOR PERSONNEL (1 - 6)   | 0.00 | 0.00 | 4.00 | 33,836                          |                    |                             |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |      |      |      |                                 |                    |                             |                                     |
| 1. ( 0 ) POST DOCTORAL ASSOCIATES   | 0.00 | 0.00 | 0.00 | 0                               |                    |                             |                                     |
| 2. ( 0 ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)   | 0.00 | 0.00 | 0.00 | 0                               |                    |                             |                                     |
| 3. ( 0 ) GRADUATE STUDENTS  |      |      |      | 0                               |                    |                             |                                     |
| 4. ( 0 ) UNDERGRADUATE STUDENTS   |      |      |      | 0                               |                    |                             |                                     |
| 5. ( 0 ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)   |      |      |      | 0                               |                    |                             |                                     |
| 6. ( 0 ) OTHER  |      |      |      | 0                               |                    |                             |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |      |      |      | 33,836                          |                    |                             |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |      |      |      | 2,605                           |                    |                             |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |      |      |      | 36,441                          |                    |                             |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)<br><b>workstation + hardware upgrades</b>                       |      |      |      | \$ 8,500                        |                    |                             |                                     |
| TOTAL EQUIPMENT   |      |      |      | 8,500                           |                    |                             |                                     |
| E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |      |      |      | 2,000                           |                    |                             |                                     |
| 2. FOREIGN  |      |      |      | 4,500                           |                    |                             |                                     |
| F. PARTICIPANT SUPPORT COSTS  |      |      |      |                                 |                    |                             |                                     |
| 1. STIPENDS \$ _____  |      |      |      | 0                               |                    |                             |                                     |
| 2. TRAVEL _____   |      |      |      | 9,500                           |                    |                             |                                     |
| 3. SUBSISTENCE _____  |      |      |      | 0                               |                    |                             |                                     |
| 4. OTHER _____  |      |      |      | 0                               |                    |                             |                                     |
| ( 11 ) TOTAL PARTICIPANT COSTS  |      |      |      | 9,500                           |                    |                             |                                     |
| G. OTHER DIRECT COSTS   |      |      |      |                                 |                    |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |      |      |      | 1,295                           |                    |                             |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |      |      |      | 0                               |                    |                             |                                     |
| 3. CONSULTANT SERVICES  |      |      |      | 0                               |                    |                             |                                     |
| 4. COMPUTER SERVICES  |      |      |      | 0                               |                    |                             |                                     |
| 5. SUBAWARDS  |      |      |      | 405,223                         |                    |                             |                                     |
| 6. OTHER  |      |      |      | 0                               |                    |                             |                                     |
| TOTAL OTHER DIRECT COSTS  |      |      |      | 406,518                         |                    |                             |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |      |      |      | 467,459                         |                    |                             |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)<br><b>% of MTDC (Rate: 78.00, Base: 33836)</b>   |      |      |      |                                 |                    |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |      |      |      | 26,392                          |                    |                             |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |      |      |      | 493,851                         |                    |                             |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |      |      |      | 0                               |                    |                             |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |      |      |      | \$ 493,851                      |                    |                             |                                     |
| M. COST SHARING PROPOSED LEVEL \$ <b>0</b>  |      |      |      | AGREED LEVEL IF DIFFERENT \$    |                    |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |      |      | DATE | FOR NSF USE ONLY                |                    |                             |                                     |
| <b>James B Lipton</b>   |      |      |      | INDIRECT COST RATE VERIFICATION |                    |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |      |      | DATE | Date Checked                    | Date Of Rate Sheet | Initials - ORG              |                                     |

## SUMMARY PROPOSAL BUDGET COMMENTS - Year 4

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**\*\* E- Travel**

**Attend principal Logic Programming, Software and Rewriting  
Conferences (ILPS,ALP,PLILP,RTA,TAPSOFT), meet with other collaborators.**



# SUMMARY PROPOSAL BUDGET YEAR 5

| ORGANIZATION<br><b>Wesleyan University</b>  |      |      |       | FOR NSF USE ONLY                |                    |                             |                                     |
|---|------|------|-------|---------------------------------|--------------------|-----------------------------|-------------------------------------|
|   |      |      |       | PROPOSAL NO.                    | DURATION (months)  |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |      |      |       | AWARD NO.                       | Proposed           | Granted                     |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |      |      |       | NSF Funded Person-mos.          |                    | Funds Requested By proposer | Funds granted by NSF (if different) |
|   | CAL  | ACAD | SUMR  |                                 |                    |                             |                                     |
| 1. <b>James B Lipton - PI</b>   | 0.00 | 0.00 | 2.00  | \$ 16,378                       |                    |                             |                                     |
| 2. <b>Daniel J Dougherty - co-PI</b>  | 0.00 | 0.00 | 2.00  | 18,051                          |                    |                             |                                     |
| 3.  |      |      |       |                                 |                    |                             |                                     |
| 4.  |      |      |       |                                 |                    |                             |                                     |
| 5.  |      |      |       |                                 |                    |                             |                                     |
| 6. ( 0 ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 7. ( 2 ) TOTAL SENIOR PERSONNEL (1 - 6)   | 0.00 | 0.00 | 4.00  | 34,429                          |                    |                             |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |      |      |       |                                 |                    |                             |                                     |
| 1. ( 0 ) POST DOCTORAL ASSOCIATES   | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 2. ( 0 ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)   | 0.00 | 0.00 | 0.00  | 0                               |                    |                             |                                     |
| 3. ( 0 ) GRADUATE STUDENTS  |      |      |       | 0                               |                    |                             |                                     |
| 4. ( 0 ) UNDERGRADUATE STUDENTS   |      |      |       | 0                               |                    |                             |                                     |
| 5. ( 0 ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)   |      |      |       | 0                               |                    |                             |                                     |
| 6. ( 0 ) OTHER  |      |      |       | 0                               |                    |                             |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |      |      |       | 34,429                          |                    |                             |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |      |      |       | 2,651                           |                    |                             |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |      |      |       | 37,080                          |                    |                             |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)<br><b>hardware upgrades</b>                                     |      |      |       | \$ 4,500                        |                    |                             |                                     |
| TOTAL EQUIPMENT   |      |      |       | 4,500                           |                    |                             |                                     |
| E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |      |      |       | 2,000                           |                    |                             |                                     |
| 2. FOREIGN  |      |      |       | 4,500                           |                    |                             |                                     |
| F. PARTICIPANT SUPPORT COSTS  |      |      |       |                                 |                    |                             |                                     |
| 1. STIPENDS \$ _____  |      |      | 0     |                                 |                    |                             |                                     |
| 2. TRAVEL _____   |      |      | 9,500 |                                 |                    |                             |                                     |
| 3. SUBSISTENCE _____  |      |      | 0     |                                 |                    |                             |                                     |
| 4. OTHER _____  |      |      | 0     |                                 |                    |                             |                                     |
| ( 11 ) TOTAL PARTICIPANT COSTS  |      |      |       | 9,500                           |                    |                             |                                     |
| G. OTHER DIRECT COSTS   |      |      |       |                                 |                    |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |      |      |       | 1,296                           |                    |                             |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |      |      |       | 0                               |                    |                             |                                     |
| 3. CONSULTANT SERVICES  |      |      |       | 0                               |                    |                             |                                     |
| 4. COMPUTER SERVICES  |      |      |       | 0                               |                    |                             |                                     |
| 5. SUBAWARDS  |      |      |       | 408,912                         |                    |                             |                                     |
| 6. OTHER  |      |      |       | 0                               |                    |                             |                                     |
| TOTAL OTHER DIRECT COSTS  |      |      |       | 410,208                         |                    |                             |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |      |      |       | 467,788                         |                    |                             |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)<br><b>% of MTDC (Rate: 78.00, Base: 34429)</b>   |      |      |       |                                 |                    |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |      |      |       | 26,854                          |                    |                             |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |      |      |       | 494,642                         |                    |                             |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |      |      |       | 0                               |                    |                             |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |      |      |       | \$ 494,642                      |                    |                             |                                     |
| M. COST SHARING PROPOSED LEVEL \$ <b>0</b>  |      |      |       | AGREED LEVEL IF DIFFERENT \$    |                    |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |      |      | DATE  | FOR NSF USE ONLY                |                    |                             |                                     |
| <b>James B Lipton</b>   |      |      |       | INDIRECT COST RATE VERIFICATION |                    |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |      |      | DATE  | Date Checked                    | Date Of Rate Sheet | Initials - ORG              |                                     |

## SUMMARY PROPOSAL BUDGET COMMENTS - Year 5

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**\*\* E- Travel**

**Attend principal Logic Programming, Software and Rewriting Conferences (ILPS,ALP,PLILP,RTA,TAPSOFT), meet with other collaborators.**

# SUMMARY PROPOSAL BUDGET Cumulative

| ORGANIZATION<br><b>Wesleyan University</b>  |  |  |      | FOR NSF USE ONLY                |                    |                |                             |                                     |
|---|--|--|------|---------------------------------|--------------------|----------------|-----------------------------|-------------------------------------|
|   |  |  |      | PROPOSAL NO.                    | DURATION (months)  |                |                             |                                     |
| PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR<br><b>James B Lipton</b>  |  |  |      | AWARD NO.                       | Proposed           | Granted        |                             |                                     |
| A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates<br>(List each separately with title, A.7. show number in brackets) |  |  |      | NSF Funded Person-mos.          |                    |                | Funds Requested By proposer | Funds granted by NSF (if different) |
|   |  |  |      | CAL                             | ACAD               | SUMR           |                             |                                     |
| 1. <b>James B Lipton - PI</b>   |  |  |      | 0.00                            | 0.00               | 10.00          | \$ 76,391                   | \$                                  |
| 2. <b>Daniel J Dougherty - co-PI</b>  |  |  |      | 0.00                            | 0.00               | 10.00          | 85,147                      |                                     |
| 3.  |  |  |      |                                 |                    |                |                             |                                     |
| 4.  |  |  |      |                                 |                    |                |                             |                                     |
| 5.  |  |  |      |                                 |                    |                |                             |                                     |
| 6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)  |  |  |      | 0.00                            | 0.00               | 0.00           | 0                           |                                     |
| 7. ( <b>2</b> ) TOTAL SENIOR PERSONNEL (1 - 6)  |  |  |      | 0.00                            | 0.00               | 20.00          | 161,538                     |                                     |
| B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)   |  |  |      |                                 |                    |                |                             |                                     |
| 1. ( <b>1</b> ) POST DOCTORAL ASSOCIATES  |  |  |      | 0.00                            | 9.00               | 0.00           | 40,000                      |                                     |
| 2. ( <b>0</b> ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)  |  |  |      | 0.00                            | 0.00               | 0.00           | 0                           |                                     |
| 3. ( <b>0</b> ) GRADUATE STUDENTS   |  |  |      |                                 |                    |                | 0                           |                                     |
| 4. ( <b>0</b> ) UNDERGRADUATE STUDENTS  |  |  |      |                                 |                    |                | 0                           |                                     |
| 5. ( <b>0</b> ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)  |  |  |      |                                 |                    |                | 0                           |                                     |
| 6. ( <b>0</b> ) OTHER   |  |  |      |                                 |                    |                | 0                           |                                     |
| TOTAL SALARIES AND WAGES (A + B)  |  |  |      |                                 |                    |                | 201,538                     |                                     |
| C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)   |  |  |      |                                 |                    |                | 18,438                      |                                     |
| TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)   |  |  |      |                                 |                    |                | 219,976                     |                                     |
| D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)   |  |  |      |                                 |                    |                |                             |                                     |
| \$ 30,500   |  |  |      |                                 |                    |                |                             |                                     |
| TOTAL EQUIPMENT   |  |  |      |                                 |                    |                | 30,500                      |                                     |
| E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)   |  |  |      |                                 |                    |                | 10,000                      |                                     |
| 2. FOREIGN  |  |  |      |                                 |                    |                | 22,500                      |                                     |
| F. PARTICIPANT SUPPORT COSTS  |  |  |      |                                 |                    |                |                             |                                     |
| 1. STIPENDS \$ _____ <b>0</b>   |  |  |      |                                 |                    |                |                             |                                     |
| 2. TRAVEL _____ <b>48,768</b>   |  |  |      |                                 |                    |                |                             |                                     |
| 3. SUBSISTENCE _____ <b>0</b>   |  |  |      |                                 |                    |                |                             |                                     |
| 4. OTHER _____ <b>0</b>   |  |  |      |                                 |                    |                |                             |                                     |
| ( <b>55</b> ) TOTAL PARTICIPANT COSTS   |  |  |      |                                 |                    |                | 48,768                      |                                     |
| G. OTHER DIRECT COSTS   |  |  |      |                                 |                    |                |                             |                                     |
| 1. MATERIALS AND SUPPLIES   |  |  |      |                                 |                    |                | 6,405                       |                                     |
| 2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION  |  |  |      |                                 |                    |                | 0                           |                                     |
| 3. CONSULTANT SERVICES  |  |  |      |                                 |                    |                | 0                           |                                     |
| 4. COMPUTER SERVICES  |  |  |      |                                 |                    |                | 0                           |                                     |
| 5. SUBAWARDS  |  |  |      |                                 |                    |                | 2,004,652                   |                                     |
| 6. OTHER  |  |  |      |                                 |                    |                | 0                           |                                     |
| TOTAL OTHER DIRECT COSTS  |  |  |      |                                 |                    |                | 2,011,057                   |                                     |
| H. TOTAL DIRECT COSTS (A THROUGH G)   |  |  |      |                                 |                    |                | 2,342,801                   |                                     |
| I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)  |  |  |      |                                 |                    |                |                             |                                     |
| TOTAL INDIRECT COSTS (F&A)  |  |  |      |                                 |                    |                | 157,199                     |                                     |
| J. TOTAL DIRECT AND INDIRECT COSTS (H + I)  |  |  |      |                                 |                    |                | 2,500,000                   |                                     |
| K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.j.)  |  |  |      |                                 |                    |                | 0                           |                                     |
| L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)  |  |  |      |                                 |                    |                | \$ 2,500,000                | \$                                  |
| M. COST SHARING PROPOSED LEVEL \$ <b>0</b>  |  |  |      | AGREED LEVEL IF DIFFERENT \$    |                    |                |                             |                                     |
| PI / PD TYPED NAME & SIGNATURE*   |  |  | DATE | FOR NSF USE ONLY                |                    |                |                             |                                     |
| <b>James B Lipton</b>   |  |  |      | INDIRECT COST RATE VERIFICATION |                    |                |                             |                                     |
| ORG. REP. TYPED NAME & SIGNATURE*   |  |  | DATE | Date Checked                    | Date Of Rate Sheet | Initials - ORG |                             |                                     |